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REMARKS ON THREE NALOO NEGRO SKULLS.

BY RICHARD CULL,

Fellow of the Ethnological Society.

Read before the Society, 25th April 1849.

It is with considerable diffidence that I venture, at the request of our most zealous secretary, Dr King, to offer some remarks on the three Naloo negro skulls lying on the table.

The complete ossification of the cranial bones, the partial obliteration of the sutures, the ossific junction of the styloid process to the temporal bone, and the full development of the teeth, concur to indicate the mature age of the individuals to whom the skulls belonged. But the unworn condition of the teeth forbids us to infer that they were aged.

The skulls are marked A, B, and C, respectively. Those marked A and B are the skulls of men. The smaller malar bones, the more slender zygomata, together with the lesser development of those processes to which the powerful muscles are attached, would lead to the inference that the skull marked C is that of a woman, but Mr Whitfield knows it to be that of a man who fell in battle. The jaws project forward, especially in A, and least so in C. The malar bones do not appear to be laterally protuberant, but the zygomata are very much so, especially in A and C, where they are very convex.

In all three crania the sutures are less complex and more obliterated than in Europeans, especially in A and C. In all three the lamdoidal suture is most complex, and in that suture are several triquetral bones, but they are found near the junction with the mastoid suture, and not, as is most common, at the union of the sagittal with the lamdoidal. Triquetral bones are thought to be rare in African crania, and Blumenbach doubts if they are found in the crania of any savage races. These small bones, however, are as common in African as in European crania; and they are also as common in the crania of all savage races that I have examined.

There are modifications both of the forms and junctions of

the several cranial bones. Thus, the sphenoid sometimes does not abut upon the parietal bone, but this modification is of rare occurrence in human crania. In all three Naloo skulls the sphenoid well abuts upon the parietal bone.

I shall not occupy the time by describing those modifications, because they are not constant; and, even if they were constant, they would not justify the adoption of the degrading term *inferior* to the negro race. The term inferior, applied to a race of men, is understood to mean inferior in those intellectual, moral, and religious qualities of mind which give dignity and goodness to character. Before we declare a race to be inferior in that respect, by the presence of any *physical* peculiarities, I think we ought to be satisfied that the inferiority depends on, and is a consequence of those physical peculiarities.

The character of a race depends upon its mental manifestations, and those depend on the brain. We have all of us witnessed Europeans with prominent jaws maintaining their position in civilized life. We have lately ourselves witnessed, in this Society, the talent of the Rev. Mr Hanson. Who is there that has not read of the virtues of Eustache? And there are ample records of many prognathous negroes who have distinguished themselves, and become brilliant examples of intellectual, moral, and religious greatness. But it is not merely a few superior individuals distinguishing themselves from the mass of the negro population,—there is now a large settlement, where civilization is making rapid progress, not by the substitution of a civilized race for that uncivilized one which is fast melting away, but by the civilization of the prognathous negro population which is now taking place in Liberia.

The physical man given to find the mental one, has been a problem which has engaged much attention. Physiologists have all rightly considered the brain as the organ of the mind. The question then arose, what are the peculiarities of brain on which the recognised peculiarities of mind depend? Camper invented his facial angle to measure the facial line, on the assumption that that line measures those peculiarities of brain. Blumenbach, Cuvier, Majendie, Tiede-

mann, Pritchard, and others, declare its failure; and Professor Owen correctly remarks, that the difference of the facial angle in the Naloo skulls depends on the different development of the incisive alveoli; and hence the facial angle does not even measure the relative prominence of the jaws.

Several other methods have been proposed to measure those peculiarities of brain, and I shall briefly refer to them, because they are important in relation to these Naloo crania, and will be necessary to my subsequent contributions on the craniography of the races of man.

Daubenton's angle is never heard of now. Blumenbach's observations fully proved its insufficiency.

Pritchard's method is condemned by Professor Owen, in his observations on these Naloo crania.

Daubenton long ago pointed out the relative situation of the foramen magnum in the head of man and of animals. It is placed much farther backwards than in the human head. It may be remarked, that this proposition is merely asserting in another form of expression, that the jaw of animals is more prominent than that of man. Professor Owen's objection to Camper's facial angle is equally fatal to Daubenton's proposition concerning the situation of the foramen magnum; and it is also equally fatal to those inferences which Dr Pritchard drew from Mr Owen's statements on the subject, in his memoir on the osteology of the Chimpanzee. And Dr Pritchard subsequently admitted, that the relative situation of the foramen magnum in human crania depends on the prominence of the alveolar process. There is no fixed ratio between the size of the human cranium and face; and there is no relationship between the amount of talent and the size of the face, as Sœmmering thought there exists.

"The brain," says Professor Tiedemann, in his paper on the brain of the negro, "is undoubtedly the organ of the mind. It is the part of our body which gives us the consciousness of our own existence, and through which we receive the impressions made upon the external senses, conducted to the brain by the nerves. Here the perceptions are compared and combined, so as to produce ideas. In this

organ we think, reason, desire, and will. In short, the brain is the instrument by which all the operations called intellectual are carried on"* The chief value of the study of human crania is, that the cranium is a faithful record of the volume of the brain which was contained within it. Tiedemann determined the relative magnitudes of the Negro and European brains by weighing the quantity of dry millet seed with which he filled the crania. And Majendie says, "The only way of estimating the volume of brain in a living person is to measure the dimensions of the skull."†

Amongst other conclusions which Tiedemann draws from his observations is this:—"5. There is undoubtedly a very close connection between the absolute size of the brain and the intellectual powers and functions of the mind. This is evident from the remarkable smallness of the brain in cases of congenital idiotismus, few much exceeding in weight the brain of a new-born child. Gall, Spurzheim, Haslam, Esquirol, and others, have already observed this, which is also confirmed by my own researches. The brain of very talented men is remarkable, on the other hand, for its size."‡

I proceed to give some measurements of the Naloo crania, and to compare them with similar measurements of two Congo negro crania, an Ashantee negro crania, and some European crania. The Naloo tribe is located on the banks of the Nunez, to the south of the Gambia, and in latitude 12° north. The Ashantee country extends northward to about 10° north latitude; and Congo is situated in 7° south latitude.

* Phil. Trans. 1836, p. 520.

† Majendie's Physiology by Milligan, p. 104.

‡ Phil. Trans. 1836, p. 502.

Diameter measurements made by Callipers.

THE NALOO CRANIA.	A.	B.	C.
The longest diameter from the root of the nose to the protuberance just above the occipital spine, ... }	$7\frac{3}{8}$	$7\frac{1}{2}$	$7\frac{1}{4}$
The transverse diameter from one meatus externus to the other, ... }	$4\frac{3}{8}$	$4\frac{5}{8}$	$4\frac{3}{8}$
PERIPHERAL MEASUREMENTS MADE BY TAPE.			
The greatest circumference of head taken over the root of the nose to the protuberance above the occipital spine, ... }	$20\frac{1}{2}$	21	20
From the occipital spine over the head to the root of the nose, ... }	$12\frac{1}{2}$	$13\frac{1}{4}$	$12\frac{1}{2}$
From the meatus externus over the head to the other meatus externus, ... }	$12\frac{1}{8}$	$12\frac{3}{4}$	$12\frac{1}{8}$

Subjoined are similar measurements of an Ashantee and two Congo crania in the Museum of the late M. Deville, and marked Nos. 1440 and 1668 in his collection. They are all three crania of adult, but not aged men. In all the jaws are prominent. For the convenience of reference, the Congo are numbered 1 and 2 respectively.

DIAMETER MEASUREMENTS MADE BY CALLIPERS.	Ashantee.	Congo 1.	Congo 2.
The longest diameter from the root of the nose to the protuberance just above the occipital spine, ... }	7	$6\frac{7}{8}$	$6\frac{7}{8}$
The transverse diameter from one meatus externus to the other, ... }	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$
PERIPHERAL MEASUREMENTS MADE BY TAPE.			
The greatest circumference of head taken over the root of the nose to the protuberance above the occipital spine, ... }	$19\frac{1}{2}$	$19\frac{3}{8}$	$19\frac{1}{2}$
From the occipital spine over the head to the root of the nose, ... }	$12\frac{3}{8}$	$11\frac{1}{2}$	$12\frac{1}{2}$
From the meatus externus over the head to the other meatus externus, ... }	12	$11\frac{1}{2}$	$12\frac{1}{4}$

The Naloo crania are larger than the Ashantee and Congo crania. And the Naloo marked B is larger than A and C.

It need scarcely be remarked that a much greater number of crania must be measured in order to obtain an average before we are justified in asserting that the Naloo negroes have larger brains than the Congo and Ashantee negroes.

TABLE of Measurements of European crania of men, comprising 3 English crania of unknown persons; 1 also, Julien Hibbert, an English gentleman of fortune; 2 Highlanders of Scotland, viz., King Robert Bruce and the poet Burns; and 1 German, viz., Dr Spurzheim.

DIAMETER MEASUREMENTS MADE BY CALLIPERS.	ENGLISH.				HIGHLAND.		GERMAN.
	A.	B.	C.	Hibbert.	Bruce.	Burns.	Spurzheim.
The longest diameter from the root of the nose to the protuberance just above the occipital spine, . }	7 $\frac{5}{8}$	7 $\frac{3}{8}$	7 $\frac{5}{8}$	7 $\frac{1}{8}$	8	8	7 $\frac{3}{4}$
The transverse diameter from one meatus externus to the other, . }	5	4 $\frac{3}{4}$	5	4 $\frac{3}{4}$	6	5 $\frac{3}{4}$	6
PERIPHERAL MEASUREMENTS MADE BY TAPE.							
The greatest circumference of head taken above the nose to the protuberance above the occipital spine, }	21 $\frac{1}{2}$	20 $\frac{3}{4}$	21 $\frac{1}{2}$	20 $\frac{1}{4}$	22 $\frac{1}{2}$	22 $\frac{1}{4}$	22 $\frac{1}{4}$
From the occipital spine over the head to the root of the nose, . }	13 $\frac{1}{8}$	13 $\frac{1}{4}$	13 $\frac{1}{4}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$	14	13 $\frac{1}{2}$
From the meatus externus over the head to the other meatus externus, ... }	13 $\frac{1}{8}$	12 $\frac{3}{4}$	12 $\frac{1}{4}$	12 $\frac{3}{8}$	14	13	13 $\frac{3}{4}$

The measurements of the six negro crania exhibit a less capacity for the brain than is found in European crania. It may be objected that these measurements will not enable us to ascertain with exactness the solid contents of the cranium, and that therefore the value of our comparison will be diminished. The measurements are not intended for that purpose, but they are sufficient to enable us to compare the sizes of crania. The smaller measurements of the negro crania are in harmony with Tiedemann's researches. He gives tables of the respective weights of millet seed, which was required to fill the cavity in 38 negroes, and in 77 Euro-

peans. I have taken an average of his tables which is sub-joined.

The average of 38 negroes, is 37 ounces, 6 drams, 18 grains.

The average of 77 Europeans, is 41 ounces, 2 drams, 30 grains.

Thus, the brain of the negro is considerably smaller than the European. And those of the Naloo tribe are no exception to other negroes, if we may suppose those three crania to be average specimens.

It is difficult to describe irregular solid forms with precision. The verbal descriptions of the various forms of national crania are unsatisfactory. The terms long and broad are vague, and we have gained nothing either in precision or convenience, by exchanging those terms for the cumbersome Greek compounds, brachycephalous and dolichocephalous. The term elongated, besides its vagueness, is suggestive of an artificial change of form, as are also the terms depressed and contracted. Mr Lawrence sums up his description of the Ethiopian variety of cranium thus, "Narrow and depressed forehead; the entire cranium contracted anteriorly; the cavity smaller, both in its circumference and transverse measurements.*"

I proceed to add such measurements of the Naloo crania as will, with the preceding ones, exhibit their forms, their relative magnitudes, and the relative magnitudes of the regions in each cranium. The situation of the sutures in relation to the subjacent brain, is not sufficiently constant to serve as fixed points for our measurements. The situation of the tuberosities of the parietal and occipital bones are also inconstant. And therefore, we must select some other points. The phrenologists have supplied us with such points in their localization of the mental faculties, and whether we adopt or reject their physiology, we may avail ourselves of their description of the surface of the cranium as fixed stations for our survey. My friend Dr Browne, at my request, has most kindly measured the Naloo crania from those points :—

* Lawrence's Lectures on Man, section 2, chap. 4.

PERIPHERAL MEASUREMENTS MADE BY TAPE.	A.	B.	C.
The greatest circumference of the crania } measured from the organ named Philo- progenitiveness to the root of the nose, }	20 $\frac{1}{2}$	21	20
Circumference from the organ named Philo- progenitiveness to that named Compari- son, ... }	19 $\frac{3}{4}$	20 $\frac{1}{8}$	20
From the occipital spine over the head to } the root of the nose, ... }	12 $\frac{1}{2}$	13 $\frac{1}{4}$	12 $\frac{1}{2}$
From the meatus externus vertically over } the head to the opposite meatus, . }	12 $\frac{1}{8}$	12 $\frac{3}{4}$	12 $\frac{1}{8}$
DIAMETER MEASUREMENTS MADE BY CALLIPERS.			
The long diameter is from Philoprogenitive- } ness to Individuality, ... }	7 $\frac{3}{8}$	7 $\frac{1}{2}$	7 $\frac{1}{4}$
TRANSVERSE DIAMETERS.			
Constructiveness to Constructiveness, . .	4 $\frac{1}{4}$	4 $\frac{1}{8}$	4 $\frac{1}{8}$
Meatus to Meatus, ...	4 $\frac{3}{8}$	4 $\frac{5}{8}$	4 $\frac{3}{4}$
Mastoid process to Mastoid process, . .	5 $\frac{1}{10}$	4 $\frac{9}{10}$	4 $\frac{9}{10}$
Destructiveness to Destructiveness, . .	5 $\frac{3}{10}$	5 $\frac{4}{10}$	5 $\frac{3}{10}$
Secretiveness to Secretiveness, ...	5	5 $\frac{1}{2}$	5 $\frac{3}{8}$
Cautiousness to Cautiousness, ...	4 $\frac{6}{10}$	5 $\frac{4}{10}$	5 $\frac{3}{10}$
Ideality to Ideality, ...	4 $\frac{9}{10}$	4 $\frac{7}{8}$	4 $\frac{1}{2}$

Measurements of radii from the meatus externus to various points on the mesial line which extends from the root of the nose to the occipital spine, and which is a peripheral line.

Meatus externus to Individuality, . .	4 $\frac{5}{8}$	4 $\frac{7}{10}$	4 $\frac{3}{10}$
... .. Comparison, . . .	5	5	4 $\frac{7}{10}$
... .. Benevolence, . . .	5 $\frac{1}{8}$	5 $\frac{1}{8}$	4 $\frac{8}{10}$
... .. Veneration, . . .	5 $\frac{1}{8}$	5 $\frac{1}{8}$	4 $\frac{8}{10}$
... .. Firmness, . . .	5 $\frac{1}{8}$	5 $\frac{1}{8}$	4 $\frac{7}{10}$
... .. Self-Esteem, . . .	5 $\frac{1}{8}$	5	4 $\frac{8}{10}$
... .. Inhabitiveness, . .	5	4 $\frac{8}{10}$	4 $\frac{7}{10}$
... .. Philoprogenitiveness, .	4 $\frac{1}{2}$	4 $\frac{4}{10}$	4 $\frac{1}{8}$

Thus in all three crania the basilar and posterior regions predominate over the coronal and the anterior regions.